ENGLAND GCSE PHYSICS AQA FOUNDATION · UNIT 3 · 10 QUESTIONS

Particle Model of Matter — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A thermometer measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

- A 10
- B 0
- C 32
- D 100

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2 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

- A a reversible reaction
- B a chemical change
- C an energy transfer
- D a neutralisation

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3 **A material has a density of 8 g per cubic centimetre. What is the mass of 25 cubic centimetres of it?**

- A 100 g
- B 200 g
- C 400 g
- D 33 g

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4 **How much energy is needed to heat 2 kg of a substance with a specific heat capacity of 2100 J per kg per degree Celsius by 10 degrees Celsius?**

- A 4200 J
- B 21000 J
- C 42000 J
- D 84000 J

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5 **Glass marbles are shaken in a tray. What does this model?**

A particles disappearing completely

B particles bonding together

C particles gaining energy

D particles freezing into place

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6 **How much energy is needed to change 2 kg of a substance from liquid to gas, if the specific latent heat is 2260000 J per kg?**

A 9040000 J

B 2260002 J

C 2260000 J

D 4520000 J

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7 **A hot air balloon is filled with hot air. Why does it rise?**

A hot air is colder

B hot air has no mass

C hot air is heavier than cold air

D hot air is less dense

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8 **A swimming pool holds water with a density of 1000 kg per cubic metre. What is the mass of 2 cubic metres of the water?**

A 2000 kg

B 4000 kg

C 1000 kg

D 500 kg

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9 **Why does a gas exert pressure on the walls of its container?**

- **A** gravity pulls the gas down
- **B** particles hit the walls
- **C** particles stick to the walls
- **D** the walls push the gas

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10 **An object has a mass of 50 g and a volume of 50 cubic centimetres. What is its density?**

- **A** 2 g/cm³
- **B** 1 g/cm³
- **C** 100 g/cm³
- **D** 0.5 g/cm³

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ANSWER KEY

1. B
2. C
3. B
4. C
5. C
6. D
7. D
8. A
9. B
10. B

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